

CLAIMS

What is claimed is:

1. A memory for storing data for access by an application program being executed on a computer system, comprising:
 - a data structure stored in said memory, the data structure including or referring to:
 - a name;
 - a content repository identifier;
 - a property;
 - a property definition; and
 - wherein the data structure is logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository.
2. The memory of claim 1 wherein the content repository identifier comprises:
 - a repository name; and
 - a content identifier that is unique for the content repository.
3. The memory of claim 1, further comprising:
 - a reference to a parent data structure.
4. The memory of claim 1 wherein:
 - a property is an association between a name and at least one value; and
 - wherein the at least one value can be stored in one of the at least one content repositories.
5. The memory of claim 4 wherein:
 - the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.
6. The memory of claim 1 wherein:
 - the property definition can specify at least one of the following for the property:
 - property choices;

a reference;
a data type;
whether the property is mandatory;
whether the property is multi-valued;
whether the property is primary;
whether the property is read-only; and
whether the property is restricted.

7. The memory of claim 1 wherein:
the data structure is hierarchically related to other data structures and the at least one content repository.
8. The memory of claim 7 wherein:
the data structure is hierarchically inferior to the at least one content repository.
9. A computer readable medium containing a data structure for representing information in a virtual content repository (VCR), said data structure comprising:
a name;
a content repository identifier;
a property;
a property definition associated with the property; and
wherein the data structure is logically part of the VCR, and wherein the VCR represents at least one content repository.
10. The computer readable medium of claim 9 wherein the content repository identifier comprises:
a repository name; and
a content identifier that is unique for the content repository.
11. The computer readable medium of claim 9, further comprising:
a reference to a parent data structure.
12. The computer readable medium of claim 9 wherein:

a property is an association between a name and at least one value; and
wherein the at least one value can be stored in one of the at least one content
repositories.

13. The computer readable medium of claim 12 wherein:
the at least one value can be a text string, a number, an image, an
audio/visual presentation, or binary data.
14. The computer readable medium of claim 9 wherein:
the property definition can specify at least one of the following for a
property:
 - property choices;
 - a reference;
 - a data type;
 - whether the property is mandatory;
 - whether the property is multi-valued;
 - whether the property is primary;
 - whether the property is read-only; and
 - whether the property is restricted.
15. The computer readable medium of claim 9 wherein:
the data structure is hierarchically related to other data structures and the at
least one content repository.
16. The computer readable medium of claim 15 wherein:
the data structure is hierarchically inferior to the at least one content
repository.
17. A computer data signal embodied in a transmission medium, comprising:
 - a segment including a name;
 - a segment including a content repository identifier;
 - a segment including a property;
 - a segment including a property definition; andwherein the segments can be combined to form a data structure that is

logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository.

18. The data signal of claim 17 wherein the content repository identifier comprises:

a repository name; and

a content identifier that is unique for the content repository.

19. The data signal of claim 17, further comprising:

a segment including a reference to a parent data structure.

20. The data signal of claim 17 wherein:

a property is an association between a name and at least one value; and

wherein the at least one value can be stored in one of the at least one content repositories.

21. The data signal of claim 20 wherein:

the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.

22. The data signal of claim 17 wherein:

the property definition can specify at least one of the following for the property:

property choices;

a reference;

a data type;

whether the property is mandatory;

whether the property is multi-valued;

whether the property is primary;

whether the property is read-only; and

whether the property is restricted.

23. The data signal of claim 17 wherein:

the data structure is hierarchically related to other data structures and the at

least one content repository.

24. The data signal of claim 23 wherein:
the data structure is hierarchically inferior to the at least one content repository.
25. A memory for storing data for access by an application program being executed on a computer system, comprising:
 - a first object to provide a first group of services related to interacting with a hierarchical namespace;
 - a second object to provide a second group of services related to associating information with the first object;
 - a third object to provide a third group of services related to describing attributes of the second object;
wherein the first object is logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository.
26. The memory of claim 25 wherein the first group of services comprises:
first functions that enable associating the first object with a location in the namespace.
27. The memory of claim 25 wherein the second group of services comprises:
second functions that enable creating, reading, updating and deleting the information.
28. The memory of claim 25 wherein the third group of services comprises:
third functions that enable specifying at least one of the following for the second object:
 - information choices;
 - a reference;
 - an information type;
 - whether the information is mandatory;
 - whether the information is multi-valued;
 - whether the information is primary;

whether the information is read-only; and
whether the information is restricted.

29. The memory of claim 25 further comprising:
a fourth object to specify a location of the first object in the namespace.

30. The memory of claim 29 wherein the fourth object includes:
a content repository name; and
a content identifier that is unique for the content repository.

31. The memory of claim 25 wherein the first object includes:
a reference to a parent object.

32. The memory of claim 25, further comprising:
a fifth object to provide a fifth set of services related to searching the VCR;

33. The memory of claim 25 wherein:
the second object associates a name and at least one value; and
wherein the at least one value can be stored in one of the at least one content repository.

34. The memory of claim 33 wherein:
the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.

35. The memory of claim 25 wherein:
the first object is hierarchically related to other objects and the at least one content repository.

36. The memory of claim 25 wherein:
there is no second object.

37. The memory of claim 25, further comprising:
a sixth object to provide a sixth group of services related to configuring the

VCR.

38. A computer data signal embodied in a transmission medium, comprising:
 - a segment including a first object to provide a first group of services related to interacting with a hierarchical namespace;
 - a segment including a second object to provide a second group of services related to associating information with the first object;
 - a segment including a third object to provide a third group of services related to describing attributes of the second object;
wherein the first object is logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository.
39. The computer data signal 38 wherein the first group of services comprises:
first functions that enable associating the first object with a location in the namespace.
40. The computer data signal 38 wherein the second group of services comprises:
second functions that enable creating, reading, updating and deleting the information.
41. The computer data signal 38 wherein the third group of services comprises:
third functions that enable specifying at least one of the following for the second object:
 - information choices;
 - a reference;
 - an information type;
 - whether the information is mandatory;
 - whether the information is multi-valued;
 - whether the information is primary;
 - whether the information is read-only; and
 - whether the information is restricted.
42. The computer data signal 38 further comprising:

a segment including a fourth object to specify a location of the first object in the namespace.

43. The computer data signal 42 wherein the fourth object includes:
a content repository name; and
a content identifier that is unique for the content repository.
44. The computer data signal 38 wherein the first object includes:
a reference to a parent object.
45. The computer data signal 38, further comprising:
a fifth object to provide a fifth set of services related to searching the VCR;
46. The computer data signal 38 wherein:
the second object associates a name and at least one value; and
wherein the at least one value can be stored in one of the at least one content repository.
47. The computer data signal 46 wherein:
the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data.
48. The computer data signal 38 wherein:
the first object is hierarchically related to other objects and the at least one content repository.
49. The computer data signal 38 wherein:
there is no second object.
50. The computer data signal 38, further comprising:
a sixth object to provide a sixth group of services related to configuring the VCR.